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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,730	01/17/2002	Brooks Edwards	9550-001-27	2580
23552	7590	04/26/2006	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			CEPERLEY, MARY	
			ART UNIT	PAPER NUMBER
			1641	
DATE MAILED: 04/26/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/046,730

Applicant(s)

EDWARDS ET AL.

Examiner

Mary (Molly) E. Ceperley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9,11-22,24-26,28-52 and 59-68 is/are pending in the application.
- 4a) Of the above claim(s) 32-52 and 59-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-22,24-26,28-31 and 68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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**1)** Although specific claims may be discussed in the rejections below, these rejections are also applicable to all other claims in which the noted problems/language occur.

**2)** The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**3)** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**4)** Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no written description in the specification of the newly added claim limitation "a support layer having first and second opposed major surfaces".

**5)** Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the preparation and use of a "solid support" wherein *i)* the "quaternary onium polymer" is coated on the "support layer" and *ii)* the "chemiluminescent quantum yield enhancing material" is on the same side as the "immobilized probes", does not reasonably provide enablement for *i)* the preparation and use of a solid support wherein the "quaternary onium polymer" is "covalently attached to a surface" (claim 5) and/or *ii)* the "chemiluminescent quantum yield enhancing material" is on the opposing side of the support relative to the "immobilized probes" (claim 4). The specification does not enable any person skilled in the art to which it pertains, or with which it is

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most nearly connected, to make and use the invention commensurate in scope with these claims. For *i)*, there is no functional group present on the "quaternary onium polymer" for reaction with the "surface of the solid support". For *ii)*, the stated configuration, although included by the language of claim 1, would not be operable for the stated purpose of the invention (to improve the chemiluminescence detection).

**6)** Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**a)** It is unclear what is meant by the newly added claim limitation "a support layer having first and second opposed major surfaces". It is unclear what constitutes a "major surface" ("major" relative to what entity?) and it is unclear exactly what is meant by "opposed" (includes only flat surfaces with one side being "first" and the flip side being "second"? excludes beads?). It is also unclear if the "chemiluminescent quantum yield enhancing material" is attached to the "first" or "second" "major surface".

**b)** Claim 68 is confusing and indefinite in the recitation of "a quaternary onium polymer or a quaternary onium compound" since the compound depicted in the "general formula" is a "quaternary onium compound" according to claim 1.

**7)** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**8)** Claims 1, 3, 7, 8 and 22 are again rejected under 35 U.S.C. 102(b) as being anticipated by Bronstein et al (US 4,849,495) for the reasons of record {paragraph **4)** of the December 10, 2005 final rejection}.

Applicant's arguments filed January 30, 2006 have been fully considered but they are not persuasive for the reason that the "probes" on the "solid supports" of claim 1 can be "physically attached" to a "surface". This type of attachment is included in the Bronstein et al disclosure {col. 13, lines 32-54}.

**9)** Claims 1, 3, 8 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Brontstein et al (US 5,336,596) for the reasons of record {paragraph **5)** of the December 10, 2005 final rejection}.

Applicant's arguments filed January 30, 2006 have been fully considered but they are not persuasive for the reason that the "probes" on the "solid supports" of claim 1 can be "physically attached" to a "surface". This type of attachment is included in the Bronstein et al disclosure {col. 3, lines 14-30; col. 3, line 62 – col. 4, line 68; col. 8, lines 45-57}.

**10)** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary (Molly) E. Ceperley whose telephone number is (571) 272-0813. The examiner can normally be reached from 8:30 a.m. to 5:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le, can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 25, 2006

  
Mary (Molly) E. Ceperley  
Primary Examiner  
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